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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,148	12/31/2001	Alon Ram	P-4468-US	3556

27130 7590 05/27/2004

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EXAMINER

DEAN, RAYMOND S

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/032,148	Applicant(s) RAM ET AL.	
	Examiner Raymond S Dean	Art Unit 2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17 - 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17 - 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 17 have been considered but are moot in view of the new ground(s) of rejection. Darnell teaches an integrated circuit including a first processor to calculate, at least in part, a location of said mobile unit from at least said global positioning signals and to process base station signals received by said communication transceiver from said base station and to provide said communication transceiver with signals to be transmitted to said base station (Figure 4, Column 3 lines 38 – 60, the processor (34) controls the both the cellular phone functions and GPS functions). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the processor of Darnell as an alternative to the processors of Townsend thereby simplifying the circuitry of the mobile phone of Townsend thus creating a mobile phone that conducts GPS and cellular functions via a smaller number of circuit components as taught by Darnell.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17 – 19, 21 – 23, and 26 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Townsend et al. (US 6,501,420) in view of Darnell et al. (5,043,736).

Regarding Claim 17, Townsend teaches a mobile unit comprising: a global positioning system (GPS) receiver to receive global positioning signals from global positioning satellites (Figure 1, Column 3 lines 3 – 5); a communication transceiver to communicate with a base station (Figure 1, Column 2 lines 60 – 63); and an integrated circuit including a first processor to calculate, at least in part, a location of said mobile unit from at least said global positioning signals (Column 3 lines 8 – 21).

Townsend does not teach an integrated circuit including a first processor to calculate, at least in part, a location of said mobile unit from at least said global positioning signals and to process base station signals received by said communication transceiver from said base station and to provide said communication transceiver with signals to be transmitted to said base station.

Darnell teaches an integrated circuit including a first processor to calculate, at least in part, a location of said mobile unit from at least said global positioning signals and to process base station signals received by said communication transceiver from said base station and to provide said communication transceiver with signals to be transmitted to said base station (Figure 4, Column 3 lines 38 – 60, the processor (34) controls the both the cellular phone functions and GPS functions).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the processor of Darnell as an alternative to the processors

of Townsend thereby simplifying the circuitry of the mobile phone of Townsend thus creating a mobile phone that conducts GPS and cellular functions via a smaller number of circuit components as taught by Darnell.

Regarding Claim 18, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend further teaches a code division multiple access (CDMA) transceiver (Figure 1, Column 2 line 60, the mobile cellular phone comprises CDMA and TDMA phones).

Regarding Claim 19, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend further teaches a time division multiple access (TDMA) transceiver (Figure 1, Column 2 line 60, the mobile cellular phone comprises CDMA and TDMA phones).

Regarding Claim 21, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend further teaches wherein said processor is a controller (Column 3 lines 3 – 6, the processor control the GPS receiver thus said processor is a controller).

Regarding Claim 22, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend further teaches an audio apparatus; and a memory, wherein said memory is coupled to said integrated circuit through a bus and said audio apparatus is coupled to said integrated circuit through at least said bus (Figure 2, Column 2 lines 65 – 67, Column 3 lines 1 – 2, Column 3 lines 8 – 17, since the mobile phone has an audio/video apparatus there is an inherent data bus and buffer memory for carrying data to said audio/video apparatus).

Regarding Claim 23, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend further teaches a buffer memory to couple said audio apparatus to said integrated circuit (Column 2 lines 65 – 67, Column 3 lines 1 – 2, Column 3 lines 8 – 17; since the mobile phone has an audio/video apparatus there is an inherent data bus and buffer memory for carrying data to said audio/video apparatus).

Regarding Claim 26, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend further teaches a second processor coupled to said first processor, wherein said second processor is to cooperate with said first processor in processing said base station signals and in providing said communication transceiver with said signals to be transmitted to said base station (Figure 1, Column 2 lines 60 – 65).

Regarding Claim 27, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 26. Townsend further teaches wherein said second processor is to cooperate with said first processor in calculating, at least in part, said location of said mobile unit (Column 3 lines 52 – 55).

4. Claims 20 and 24 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Townsend et al. (US 6,501,420) in view of Darnell et al. (5,043,736), as applied to Claim 17 above, and further in view of Nakagawa et al. (5,987,556).

Regarding Claim 20, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend in view of Darnell does not teach a digital signal processor.

Nakagawa teaches a digital signal processor (Column 7 lines 58 – 62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the digital signal processor taught in Nakagawa in the mobile phone of Townsend in view of Darnell as an alternative means for modulating/demodulating and encoding/decoding the digital data that is transmitted from/received by said mobile phone.

Regarding Claim 24, Townsend in view of Darnell teaches all of the claimed limitations recited in Claim 17. Townsend in view of Darnell does not teach a hardware accelerator coupled to said processor, wherein said hardware accelerator is to cooperate with said processor in processing said base station signals and in providing said communication transceiver with said signals to be transmitted to said base station.

Nakagawa teaches a hardware accelerator coupled to a processor, wherein said hardware accelerator is to cooperate with said processor in processing said base station signals and in providing said communication transceiver with said signals to be transmitted to said base station (Figure 1, Column 20 lines 44 – 46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the accelerator taught in Nakagawa in the mobile phone of Townsend in view of Darnell for the purpose of accelerating the software operation of the processor thereby creating a faster processor as taught by Nakagawa.

Regarding Claim 25, Townsend in view of Darnell and in further view of Nakagawa teaches all of the claimed limitations recited in Claim 24. Darnell further teaches a processor for calculating at least in part, said location of said mobile unit (Figure 4, Column 3 lines 38 – 60). Nakagawa further teaches an accelerator that cooperates with a processor in calculation (Figure 1, Column 2 lines 37 – 40).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S Dean whose telephone number is 571-272-7877. The examiner can normally be reached on 7:00-3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Raymond S. Dean
May 18, 2005


NAY MAUNG
SUPERVISORY PATENT EXAMINER